

Œnococcus œni wine bacteria for high acidity white wines.

Preparation controlled by the microbiology laboratory of the "Pôle Technique et Environnement du CIVC" (Champagne, France).







Selected from sparkling French wines, **VITILACTIC® STARTER BL01** is especially suitable for the deacidification of white wines, including the most acidic ones.

VITILACTIC® STARTER BL01 also contributes to the production of wines with considerable aromatic elegance and well preserved fruitiness.

MICROBIOLOGICAL AND OENOLOGICAL PROPERTIES

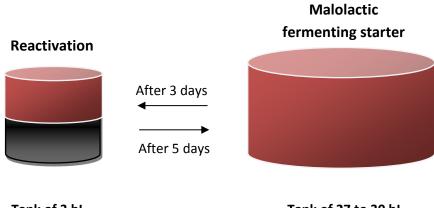
- Low pH tolerance: **VITILACTIC® STARTER BL01** is a very acidophilic lactic acid bacteria able to grow at pH values above 2.85 after acclimatization (through preparation of a bacterial starter)
- Alcohol tolerance: < 14% vol.
- Temperature tolerance: between 20 and 23°C
- High SO₂ tolerance: up to 70 mg/L of total SO₂
- Volatile acidity production: very low. VITILACTIC® STARTER BL01 lacks the enzyme citrate permease and does not
 metabolize citric acid. Thus, the risk of volatile acidity production from transformation of citric acid is avoided
- Production of biogenic amines: low
- Organoleptic deviation: none. VITILACTIC® STARTER BL01 does not degrade citric acid, it does not produce diacetyl, which is responsible for strong lactic and buttery notes
- Bacteria cinnamoyl esterase negative: cannot produce precursors for ethylphenol production by Brettanomyces

3 INSTRUCTIONS FOR USE

Inoculation with VITILACTIC® STARTER BL01 involves the following protocol.

From a complete "marc" ("cuvee" and "taille") of 25.5 hL non chaptalized and with half of the dose of SO₂:

Reactivation phase and the "malolactic fermenting starter" have to be realized at the same time.



Tank of 3 hL

Tank of 27 to 30 hL

Reactivation phase

In a 3 hL container, dilute 0.75 hL of "taille" with the same volume of hot water to get a final temperature of 25°C.

Add the **PRE-LACTIC** activator (0.75 kg), preferably in a part of the hot water before incorporation in the must, to facilitate the distribution. The activator could thus increase the pH of the reactivation medium till 3.2 to 3.5 (it is consequently not necessary to control the pH during this phase).

Add directly (without any rehydration) in the reactivation medium 75 g of the yeasts **VTITILEVURE® DV10** and 600 g of the bacterias **VITILACTIC® STARTER BL01**. Sprinkle these powders, stirring the medium.

Keep the temperature of the reactivation medium at 25°C. After 3 days, add the reactivation medium into the malolactic fermenting starter (analytic controls are not necessary).

Malolactic fermenting starter

The rest of the "marc" (20.5 hL of "cuvee" + 4.25 hL of "taille") is blended in a tank of 27 to 30 hL. This must starts the fermentation with 500 g of the yeasts **VTITILEVURE® DV10** previously rehydrated in a mix must/water (1/2 h at 35°C). The temperature of fermentation of the starter is maintained at 25°C.

When the reactivation medium is ready (after 3 days), supplement with an equivalent volume of the malolactic fermenting stater (1.5 hL in the 3 hL container). After 2 more days (5 days in total), incorporate the whole reactivation medium into the fermenting starter which has started the alcoholic fermentation (AF). As soon as the AF is finished, maintain the temperature at 20°C.

Use of the "malolactic fermenting starter"

The malolactic fermenting starter is used when the decrease of the acidity is equivalent to the $2/3^{rd}$ of the acid malic degradation. This stage is evaluated:

- by the malic acid analysis (final content is roughly 1.5 g/L);
- or by the decrease of the total acidity (roughly 1.5 to $2 \text{ g H}_2\text{SO}_4/\text{L}$ compared to the one of the must).

The analytic control of the malolactic fermenting starter is done after 6 days, then every 2 days.

Nutritional complement recommended:

For the wines likely to have deficiencies in essential nutrients for lactic bacterias (must with a nitrogen deficiency, botrytized must, must very clarified, wine from Chardonnay, etc.): add 20 to 30 g/hL of **MALOVIT® B** before inoculation with the starter of **VITILACTIC® STARTER BL01**.

This protocol has been suggested by the CIVC (Champagne, France) and is related to the winemaking of sparkling wines (Cf. article "Faire la fermentation malolactique sans chauffage"-"How to do the malolactic fermentation without heating" published by the CIVC in the review "Le Vigneron Champenois — June 2009).

To inoculate 100 hL of wine (or any other volume, taking into account the values in % and in g/L):

Reactivation

- "Taille" with half of the dose of SO₂: 10 L (or 3% of the starter)
- Hot water: 10 L (ou 3% of the starter)
- Activator **PRE-LACTICTM**: 100 g (or 5 g/L)
- Bacterias VITILACTIC® STARTER BL01: 80 g (or 4 g/L)
- Yeasts VITILEVURE® DV10: 10 g (or 0.5 g/L)

20 liters



After 3 days: add 20 L of the malolactic fermenting starter After 5 days: inoculate the fermenting starter with 40 L of reactivation

Malolactic fermenting starter

- Non-chaptalized must with half of the dose of SO_2 : 3 hL (or 3% of the volume to inoculate)
- Yeasts VITILEVURE® DV10 : 60 g (or 0.2 g/L)

3 hL



When the malic acid is roughly 1.5 g/L

<u>Tank</u>

100 hL of fermenting wine or at the end of the AF

100 hL

4 PACKAGING AND STORAGE

- Dose for 25 g, 100 g or 500 g kits.
- Store unopened original sealed packaging: 18 months at 4°C or 36 months at -18°C.
- Once opened, use rapidly.
- Sealed packets can be delivered and stored for 3 weeks at ambient temperature (< 25°C) without significant loss of viability.

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STATION OENOTECHNIQUE DE CHAMPAGNE

79 avenue A.A. Thévenet, CS11031 51530 MAGENTA

Tel.: 33 (0)3 26 51 29 30 / Fax: 33 (0)3 26 51 87 60 www.oenotechnic.com

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